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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/584,943      | 07/05/2006  | Yasushi Noguchi      | 128634              | 2767             |

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| EXAMINER |
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ROYSTON, ELIZABETH

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| ART UNIT | PAPER NUMBER |
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1747

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|-------------------|---------------|
| NOTIFICATION DATE | DELIVERY MODE |
|-------------------|---------------|

10/24/2011

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

OfficeAction27049@oliff.com  
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|--|--|---|--|
| <p align="center"><b>Advisory Action</b><br/><b>Before the Filing of an Appeal Brief</b></p> | <p><b>Application No.</b><br/>10/584,943</p> | <p><b>Applicant(s)</b><br/>NOGUCHI ET AL.</p> |  |
|  | <p><b>Examiner</b><br/>ELIZABETH ROYSTON</p> | <p><b>Art Unit</b><br/>1747</p>               |  |

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 05 October 2011 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.  
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: \_\_\_\_\_.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_  
13. ☐ Other: \_\_\_\_\_.

/Richard Crispino/  
Supervisory Patent Examiner, Art Unit 1747

/E. R./  
Examiner, Art Unit 1747

Continuation of 11. does NOT place the application in condition for allowance because: With regard to applicant's argument that Slykhouse fails to disclose a gas, the examiner respectfully disagrees. First, the examiner apologizes for the typo presented in the Official action dated 8/11/2011. where as applicant correctly points out the examiner typed that isobutane is a liquid above -11.7 C. The boiling point of isobutane is -11.7 C, where isobutane is a liquid below the temperature and a gas above the temperature under atmospheric conditions. Secondly, Slykhouse teaches that the spheres can be expanded before inclusion into the ceramic mixture (col. 3, line 55-56). Foamed resins include a specifically chosen volatile liquid (col. 3, line 50) that is capable of being "blown" into a gas thereby allowing the spheres to expand; "the particles being expandable to a hollow GAS-FILLED monocellular spheres by heating" (col. 3, line 52-54). For these reasons, Slykhouse is found to teach a gas-filled spheres reading on applicant's claimed invention.

With regard to applicant's argument that Slykhouse fails to disclose an acrylonitrile content of 10-90%, the examiner respectfully disagrees. While the examiner agrees that the specific example cited by applicant teaches only a specific range of acrylonitrile outside of applicant's claimed range, Slykhouse clearly discloses a possible range for acrylonitrile in the resin shell of 10-90% (col. 3, line 26-29), teaching that concentrations of acrylonitrile overlapping with applicant's claimed range were known in the art at the time of the invention. Just because the specific example is not inclusive of applicant's claimed range does not mean that Slykhouse fails to render obvious the range claimed by applicant. Likewise, just because Slykhouse is silent with regard to the possible blowing agents outside of the one specific example does not mean that Slykhouse fails to render obvious an isobutane blowing agent for other possible resin compositions. Since Slykhouse teaches an acrylonitrile concentration of 10-90 wt% and that isobutane is a suitable blowing agent, it would have been obvious to one of ordinary skill in the art at the time of the invention to have foamed resins incorporating isobutane blowing agent with the acrylonitrile concentrations disclosed by the reference.

With regard to applicant's argument that the range disclosed by applicant is outside the range of the specific examples of Slykhouse and therefore non-obvious over Slykhouse's broader range and teaching for the amount of acrylonitrile (10-90 wt%), the examiner respectfully disagrees. It has been held to be prima facie obviousness in the case where the claim ranges "overlap or lie inside the ranges disclosed by the prior art", or where the claim ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. See MPEP 2144.05(I), In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990); In re Geisler, 116 F.3d 1465, 1469-71, 43 USPQ2d 1362, 1365-66 (Fed. Cir. 1997), and Titanium Metals Corp. of America v. Banner, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985).